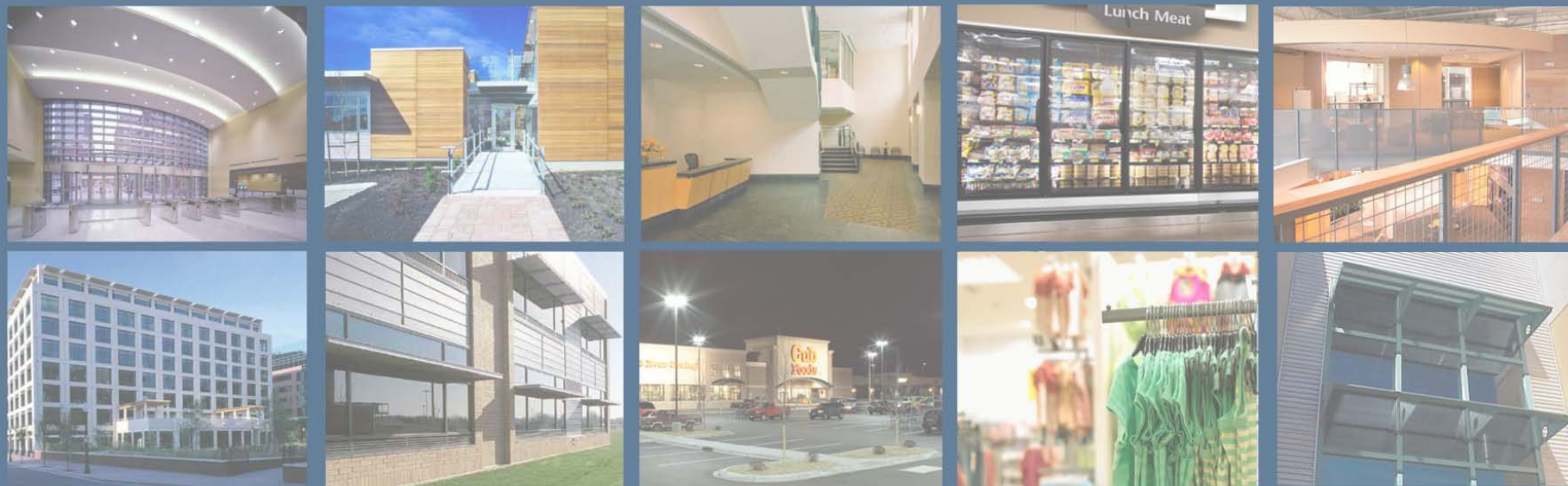


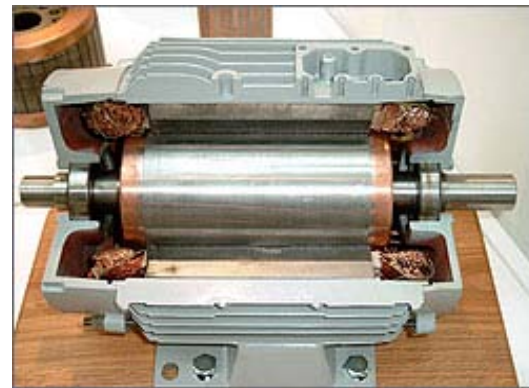
Lighting and Controls Supplier Summit Technology Identification and Screening



Lighting and Controls Supplier Summit
Las Vegas, Nevada
May 11, 2010

Linda Sandahl
Pacific Northwest National Laboratory

- Are striving for significant energy-efficiency improvements
- Require new technologies to help meet efficiency goals
- Seek help identifying new technologies that will help meet efficiency goals



- Casts a wide net ... of interest to the partners
- Systematically screens technologies
- Presents recommendations for potential action
- Sample outcomes
 - Technology demonstrations
 - Technology specifications
 - Best practices
 - Information sharing
 - No action



Mini LED 100 μm in diameter as seen through microscope

1. Partners and suppliers nominate technologies
2. DOE team applies screening criteria and presents results/recommendations to CBEA subcommittees
3. CBEA members select target technologies for further action

- Technologies nominated via the CBEA Web site:
commercialbuildings.energy.gov/alliances

Click on link “submit descriptions of new technologies”

- Information requested includes
 - Product/technology description
 - Novel features and advantages
 - Scope of application
 - Energy savings to be achieved OR energy produced
 - Performance metrics
 - Product maturity
 - Technology cost
 - Name of contact

U.S. DEPARTMENT OF
ENERGY | Energy Efficiency &
Renewable Energy

Building Technologies Program

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About Commercial Building Energy Alliances

Retailer Energy Alliance

Commercial Real Estate Energy Alliance

Hospital Energy Alliance

Suppliers

Resources

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Commercial Building Energy Alliances

The U.S. Department of Energy's (DOE) Commercial Building Energy Alliances (CBEAs) are driven and managed by key industry partners whose goal is to transform the energy efficiency of commercial buildings. The alliances play a critical role in working toward the objectives of the [Commercial Building Initiative](#) (CBI). Here you will find an overview of the alliances and how they operate.

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- **[Retailer Energy Alliance](#)**
Retailers committed to reducing the energy costs, greenhouse gas emissions, and overall operating risks of retail business.
- **[Commercial Real Estate Energy Alliance](#)**
Portfolio owners and operators who promote research, technology, and best practices that will improve the energy efficiency of commercial real estate buildings.
- **[Hospital Energy Alliance](#)**
Leading health care companies and industry organizations working to reduce facility expenses and provide a more comfortable environment through energy-efficient hospitals.

Commercial Building Partnerships

Members of any CBEA can also reply to solicitations to become [Commercial Building Partners](#), which involves committing to work with DOE's technical assistance to construct at least one new building and retrofit at least one existing building. New buildings should achieve at least a 50% improvement in efficiency; existing buildings should achieve at least a 30% improvement, relative to [ASHRAE/IESNA Standard 90.1-2004](#).

Suppliers play a critical role in providing energy-saving technologies and strategies. Learn more about how [suppliers](#) can participate with the alliances and [submit descriptions of new technologies](#).

[Printable Version](#)

Internet 121%

Four-step sequential screening process:

- Screen 1: Applicability — building types and ages
- Screen 2: Technology Status — current applications, feasibility/risk, and technology embodiment
- Screen 3: Cost and Benefits — energy savings, cost effectiveness, and non-energy impacts
- Screen 4: Program Fit and Suitability — potential alliance impact

- First round of screening: 2009
- Resulting technology categories and preliminary recommendations
 - Lighting
 - Daylighting and lighting controls
 - Interior LED lighting
 - Display LED lighting
 - Modulating HVAC & Refrigeration Systems — model and simulate modulating systems
 - HVAC and Whole Building Monitoring and Controls — best practices guidance
 - HVAC Filter Technology — best practices guidance and further research
 - Kitchen Ventilation — further technology evaluation

- Screened 72 products
- Passing technologies
 - Advanced building materials
 - Lighting controls, LED lighting, and integrated DC power distribution
 - HVAC system elements
 - HVAC and whole building monitoring and controls
 - Onsite power generation and storage
- Will develop recommendations and coordinate with CBEA subcommittees
- **Next product screening to start in early summer**

- Technologies generally available now; few still in development
- Incremental improvements typical
- Many opportunities remain
 - Subsector-specific applications
 - Technologies still in development
 - More radical departures from current technologies



http://spaic.in/yahoo_site_admin/assets/images/Microscope.260234336.jpg

- DOE does not purchase or certify nominated products
- DOE does not endorse or discourage the use of nominated products
- This is not a competition
- Products are screened against CBEA criteria
 - Screening results are not made public
- Information on nominated products is made available to CBEA members only via members-only Web site
- Vendor visits, demonstrations, and presentations are not a part of the process

- **Participate!** Nominate your products through the Web site
- For further information:

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